

What is claimed is:

1. An apparatus, comprising:

an electronic letter receiver for converting received data corresponding to a letter received from a mail server into image and character data and outputting the image and character data, said electronic letter receiver receiving each letter from a plurality of users transferred by electronic mail to the mail server, the mail server having a unique address on a network and performing a mail service function;

a letter storing unit accommodating sorting and storing of the image and character data by the account of users;

a display unit for displaying information extracted from the image and character data;

a user interface unit outputting a display requesting signal when an authorized user requests to view a letter addressed to the authorized user and outputting an account control signal having information selected by the authorized user from the displayed information;

a controller storing the image and character data received from the electronic letter receiver in the letter storing unit, outputting the stored image and character data to the display unit in response to the display requesting signal, reading image and character data selected from among the stored image and character data based on the account control signal, from the letter storing unit, and outputting the read image and character data together with a printing control signal; and

a printer for printing a letter corresponding to the image and character data selectively read by said controller, in response to the printing control signal.

1           2.     The apparatus of claim 1, said letter storing unit included within a personal computer.

1           3.     The apparatus of claim 1, said user interface unit outputting said display requesting  
2 signal and said account control signal in response to a valid password inputted by a user.

1           4.     The apparatus of claim 1, the displayed information including the number of the  
2 accounts of the users, the number of letters addressed to each account and the subjects of the letters,  
3 and the information selected by the authorized user being an account number and the subjects of the  
4 letters.

1           5.     The apparatus of claim 1, further comprising a memory storing a system program  
2 instructing said controller.

1           6.     The apparatus of claim 5, with said memory being a flash memory.

1           7.     The apparatus of claim 5, with said memory being an erasable programmable read  
2 only memory.

1           8.     The apparatus of claim 1, with said electronic letter receiver being a modem

performing modulation and demodulation for transmitting and receiving signals over a communication line.

9. The apparatus of claim 1, said electronic letter receiver converting received data corresponding to the letter under the control of the controller.

10. The apparatus of claim 1, said letter storing unit being divided into a plurality of areas accommodating image and character data corresponding to an electronic letter addressed to a certain user.

11. The apparatus of claim 1, said letter storing unit including backup function for accommodating a power failure.

12. The apparatus of claim 1, said display unit displaying information extracted from the image and character data received from said controller to a user having the authority to view the information.

13. The apparatus of claim 1, said interface unit selected from the group consisting of a keypad and a mouse accommodating the display requesting signal to be generated only when authorized users inputs a valid password by manipulating the keys of the keypad or the mouse.

1 14. The apparatus of claim 1, further comprising a scanner accommodating facsimile  
2 transmission of image data processed by said scanner under the control of said controller.

1 15. The apparatus of claim 1, further comprising a computer interface connecting a  
2 personal computer with said controller, said personal computer comprising said letter storing unit.

1 16. The apparatus of claim 15, said computer interface unit selected from the group  
2 consisting of parallel port, and universal serial bus.

1 17. The apparatus of claim 15, said computer interface receiving data scanned by a  
2 scanner and transmitting the data from the scanner to said letter storing unit of the personal  
3 computer.

1 18. The apparatus of claim 1, said printer automatically printing a letter corresponding  
2 to the image and character data selectively read by said controller, in response to the printing control  
3 signal.

1 19. A method, comprising the steps of:  
2 converting received data corresponding to each letter received from a server into image and

3 character data, each letter transferred by electronic mail to the server from a plurality of users, the  
4 server having a unique address on a network and performing a mail service function, and sorting and  
5 storing the image and character data by an account of the user;

6 continuously determining whether an authorized user requests to view letters addressed to  
7 the authorized user;

8 displaying information extracted from the stored image and character data when the  
9 authorized user requests to view said letters addressed to the authorized user;

10 determining information selected by the authorized user from the displayed information; and

11 reading image and character data corresponding to the selected information among the stored  
12 image and character data.

1 20. The method of claim 19, further comprising the step of printing a letter corresponding  
2 to the data read in said step of reading image and character data when the authorized user requests  
3 to print the letter.

1 21. The method of claim 19, said step of sorting and storing the image and character data  
2 by the account of a user being stored in a personal computer.

1 22. The method of claim 19, the step of converting received data and sorting and storing  
2 the image and character data, comprising the steps of:

3 accessing the server;  
4 setting K as the number of registered accounts, K being within the range of  $1 \leq K \leq$  the number  
5 of accounts, the number of registered accounts being a portion or all of the number of accounts;  
6 logging onto the accessed server with a K-th account;  
7 determining whether there is any letter addressed to the K-th account;  
8 decreasing K by one when there is no letter addressed to the K-th account and going back to  
9 said step of logging into the accessed server;  
10 receiving a letter from the server if there is at least one letter addressed to the K-th account;  
11 converting received data corresponding to the received letter into image and character data;  
12 sorting and storing the image and character data by the accounts of the users;  
13 determining whether K is equal to one and going back to said step of decreasing K by one  
14 when K is not equal to one; and  
15 releasing the access to the server when K is equal to one.

1 23. The method of claim 19, said step of continuously determining whether an authorized  
2 user request to view letters addressed to the authorized user, comprising the steps of:  
3 continuously determining whether a user requests to view letters;  
4 receiving a password input by the user when it is determined the user requests to view letters;  
5 determining whether the password is valid and going back to said step of receiving a  
6 password input by the user when the password is not valid; and

7 determining the user as an authorized user when the password is valid.

1 24. The method of claim 20, said step of reading image and character data comprising  
2 the steps of:

3 determining whether every letter addressed to the account of the authorized user indicated  
4 by the selected information is to be printed;

5 reading the stored image and character data corresponding to every letter when it is  
6 determined that the every letter is to be printed and proceeding to said step of printing a letter  
7 corresponding to the data read;

8 displaying the subject of letters addressed to an account indicated by the selected information  
9 when it is determined that every letter is not to be printed;

10 determining at least one subject selected by the authorized user from the displayed subjects;  
11 and

12 reading only the stored image and character data corresponding to a letters having the  
13 determined subject.

1 25. The method of claim 19, said steps being implemented by a program stored in a  
2 memory.

1 26. The method of claim 19, the step of converting received data and sorting and storing

the image and character data, comprising the steps of:

accessing the server;

setting K as one;

logging onto the accessed server with a K-th account;

determining whether there is any letter addressed to the K-th account;

increasing K by one when there is no letter addressed to the K-th account and going back to

said step of logging into the accessed server;

receiving a letter from the server if there is at least one letter addressed to the K-th account;

converting received data corresponding to the received letter into image and character data;

sorting and storing the image and character data by the accounts of the users;

determining whether K is equal to the number of registered accounts and going back to said

step of increasing K by one when K is not equal to the number of registered accounts; and

releasing the access to the server when K is equal to the number of registered accounts.

27. The method of claim 19, further comprising the step of viewing the letters and printing a letter corresponding to the data read in said step of reading image and character data when the authorized user requests to print the letter.

28. The method of claim 19, further comprising the step of printing the letters corresponding to the image and character data read by said step of reading image and character data.

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